



WHAT IS THE CROSS CONNECTION CONTROL PROGRAM?

The Lincoln Water System is implementing the following components:

- ◆ **Public education program** - Educating our water customers using this brochure, a video program and group presentations. Visit our website at: www.ci.lincoln.ne.us. Click on Public Works/Utilities, then Water Production and Distribution.
- ◆ **Survey of each water customer's facilities** - Evaluating the plumbing system by the water customer to determine if cross connections exist.
- ◆ **Installation of protective devices** - Installing backflow prevention devices where known unprotected cross connections exist.
- ◆ **Annual testing of backflow preventers** - Testing by a certified tester of all testable backflow prevention devices once each year.

How to fill out the

RESIDENTIAL CROSS CONNECTION SURVEY

QUESTION 1

UNDERGROUND LAWN IRRIGATION SYSTEMS

Contaminated lawn surface water can be siphoned back into your plumbing system through an automated lawn irrigation system unless a proper backflow device is attached to your system. Either a Pressure Vacuum Breaker (PVB) or Reduced Pressure Zone (RPZ) device should be installed to protect from backflow. Both of these devices need to be tested annually. On all lawn irrigation systems installed since 1987, the contractor should have installed a PVB or RPZ device. Older systems equipped with an atmospheric vacuum breaker need to be re-plumbed with either a PVB or RPZ.

QUESTION 2

SWIMMING POOLS OR HOT TUBS

Built in pools and hot tubs usually are connected with permanent water fill piping. An unprotected cross connection could draw disinfectant chemicals back into your household plumbing system. These should be protected by a testable device like a PVB or RPZ.

QUESTION 3

PHOTO, CHEMICAL, MEDICAL OR OTHER LAB FACILITIES

Any in-home use of photographic chemicals, other process chemicals or medical or biological laboratory supplies could cause contamination due to an unprotected cross connection. Any of these in-home uses should be protected with a testable backflow preventer. You may wish to consult your plumber about these devices.

Customer address - The address of the residential property being surveyed.

Customer name - The name of the person filling out the survey.

Phone # - The number where the customer can be reached.

Answers -

Yes: This potential cross connection exists at this property.

No: This type of cross connection does not exist at this property.

Don't know: Water pipes may be concealed.

QUESTION 4

PRIVATE WELLS AND SECONDARY WATER SERVICE LINES

Whenever two sources of water enter a property, the potential exists for the pressure in one to be greater than the other. A private well operating at 100 psi could force contaminated water back into the public water system operating at 80 psi.

QUESTION 5

LAWN AND GARDEN CHEMICAL SPRAYERS ATTACHED TO HOSES

Anytime a garden hose is submerged in or connected to a container containing a potentially harmful substance, like lawn and garden chemicals, and there's a sudden drop in water pressure, contamination can occur unless a hose bibb vacuum breaker is used. This is a simple inexpensive device installed on the faucet to which the hose is attached. A vacuum breaker is built into all new hose bibbs installed in new housing since 1992.

Other potential cross connections:

Almost every **bathtub** and **sink** are equipped with the best known backflow prevention device -- an air gap, the space between the highest water level in the fixture and the outlet of the water from the faucet. However, care should be taken to avoid leaving attached hoses submerged in contaminated water.

A **toilet flush valve** without an anti-siphon device permits contaminated water to get into the household plumbing system and into the water you drink. Require an anti-siphon device when this valve needs to be replaced.

Other possible cross connection locations include: boilers, fire protection systems, in-home water treatment systems, solar heating, car washes, decorative ponds and soaking tubs in laundry areas.

WHAT ARE CROSS CONNECTIONS?

Technically, a **cross connection** is defined as an actual or potential connection between a public water supply and a source of possible contamination or pollution.

All homes have potential cross connections.

The water pipes and plumbing fixtures that make up cross connections can be the link for contamination to get back into the drinking water supply. They can be a serious health hazard. The reversing of the flow direction in the pipes is called **backflow**.

The result of cross connection contamination is that chemicals, poisons and bacteria might find their way into the water you drink.

Help yourself, your family and your community by eliminating unprotected cross connections. Help the Lincoln Water System and your neighbors by filling out the attached Residential Cross Connection Survey form and return it to LWS.

WHAT GOES WRONG?

Water pressure can suddenly drop because of heavy usage, a fire in the area or a broken water main. When that happens, contaminated water could be siphoned back into your plumbing system from unprotected cross connections within your home. This is referred to as backflow. Even though Lincoln has a very reliable water distribution system, these pressure drops do occur somewhere in the city almost every day.

The enclosed **Residential Cross Connection Survey** is designed to identify some common residential cross connections.

BE WATER-WISE ABOUT CROSS CONNECTIONS

The Lincoln Water System delivers safe, high quality water to your home. The goal is to keep it that way -- right into your glass of drinking water.

That's why the Lincoln Water System has adopted a Cross Connection Control Program. Its goal is to protect the public health -- yours and that of families throughout the city. That is also why the Nebraska Department of Health requires each water system to have such a program. Lincoln Water System has conducted a Backflow Prevention Program with business and industry for almost 30 years.

In addition, Lincoln's Plumbing Inspectors in the Building and Safety Department check all new building construction for proper protection. And the City-County Health Department Inspectors check restaurants and food preparation areas for cross connections.

HELP IS AVAILABLE

Our Cross Connection Control Program technicians or your plumber can tell you what type of backflow prevention devices you may need.

Help is as close as your telephone.
Call 441-5929 during regular business hours.

(8 a.m. to 4 p.m., Monday through Friday).



CROSS CONNECTION CONTROLS

PROTECT OUR WATER SYSTEM